

Traumatic childhood sexual events and secondary sexual health complaints in neurotic disorders

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Summary

Aim. Assessment of the association between self-reported sexual complaints and recalled childhood sexual adversities in a sample of psychotherapy patients.

Material and methods. Coexistence of memories concerning traumatic events and minor sexual adversities and the currently present symptoms were analyzed on the basis of KO"0" Symptom Checklist and Life Inventory completed prior to treatment in the day hospital for neurotic disorders. Questionnaires from 3929 psychotherapy patients were analyzed. Logistic regression analyses were performed on biographical and symptom items. Odds ratios for men and women were determined separately.

Results. Associations between sexual adverse events, and current sexual health complaints, as estimated by OR coefficients, showed to be statistically significant. In the subgroups of patients who reported two categories of sexual adversities e.g. were both punished for masturbation and were not educated about sex, the risk of sexual complaints was further increased.

Discussion. Both self-reported traumatic sexual events and sexual problems are quite common in the patient population and are strongly associated. Our study has replicated other's findings in a large sample of outpatients suffering from neurotic disorders.

Conclusions. Deficits in sex education, the trauma of incest, punishment for sexual play or masturbation, or too early or unwanted sexual initiation, are important risk factors of sexual symptoms accompanying neurotic syndromes. Results strongly suggest that studies focusing on the effects of sexual traumatic events should take into consideration the co-occurrence of multiple adversities.

sexual traumatic events / neurotic disorders / sexual problems / risk factors

INTRODUCTION

Childhood sexual abuse and adversities appear to be non-specific risk factors for many not exclusively psychiatric disorders [1-8]. Abuse, not

only sexual, but also physical and emotional, e.g. verbal attacks, may be linked to development of psychopathological symptoms [9]. Childhood trauma may be associated with many conditions involving anxiety disorders such as panic, agoraphobia, social phobia, and simple phobias [10-12]. Some studies point to physical abuse as a better predictor of panic (its presence and severity) than sexual abuse [13-14]; some indicate the significance of parenting style (in social anxiety), while the association between childhood abuse and anxiety is only marginal [15].

Traumatic childhood sexual events are indicated in many reports and reviews to be associat-

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ed with adult sexual dysfunctions [16-17]. They affect orgasm and/or sexual drive, disturb relationships [18], and predict vestibulodynia [19], dyspareunia [20], and vulvodynia [21]. For instance, the latter is estimated 4.4 times more likely to be reported if the perpetrator was a primary family member, and 6.5 times if the abuse was frequent. Sexually abused males are also up to 5 times more likely than those not abused to report sexually related problems: difficulty controlling their sexual feelings, hypersexuality, becoming perpetrators themselves, engaging in high-risk sexual behaviors – prostitution, unprotected intercourse, multiple partners – and experience more gender role confusion and more fears surrounding intimate relationships with both men and women than others [22]. Sexual abuse is also associated with somatoform [23-24], dissociation and conversion disorders in psychiatric patients, as well as ‘isolated’ symptoms in the general population [25-30]. The aforementioned connections seem to be independent of culture and the assessment instruments used.

In contrast to the vast majority of the studies listed above, Spinhoven et al. [31] suggest a lack of evidence for the association of some psychiatric morbidities and childhood abuse, and Nijenhuis et al. [32] advocate a need for models with less exclusive reliance on childhood abuse and more focus on recent traumas (e.g. life threat). The fact that many nondysfunctional survivors of abuse are underdiagnosed further complicates the picture [16,22], as does the fact that dissociation sometimes blurs traumatic events in victims’ memories, but several authors found a predomination of continuous trauma recall [33-34]. Personality disorders are the most complex and complicated sequels to childhood adversities, above all abuse or neglect [35]. Sexual abuse was a strong predictor of the most severe of these – borderline personality disorder [36].

A high prevalence of sexual dysfunction can be expected among psychotherapy patients. In addition, significant associations can be hypothesized between sexual dysfunction and childhood sexual adversities. A previous study based on data collected in our department reported a prevalence of neurotic symptoms and sexual health complaints in a large patient population [37]. The aim of this study was to determine the associations between a history of some risk fac-

tors on the one hand – being deprived of sex education, being punished for masturbation, early or forced sexual initiation, incest – and the presence of different sexuality-related symptoms in patients with neurotic disorders on the other. Additional value of the study was the assessment of this association in a relatively large population of patients. One of the purposes of the analysis was also broadening the awareness and understanding of potentially harmful impact of the often seemingly not directly traumatizing childhood circumstances on the quality of sex life in adulthood and on developing sex-related neurotic symptoms.

MATERIALS AND METHODS

This retrospective study was performed at the psychotherapy department of a large university hospital. Eligible participants were all patients in the 22-year period 1980–2002 who were accepted for psychotherapy treatment after several appointments with psychiatrists and psychologists in the outpatient clinical diagnostic facility and after completion of a routine set of questionnaires. The selected demographic variables assessed are listed in Table 1. Patients who declined to participate in psychotherapy or who were referred elsewhere (e.g. due to psychotic disorders) were excluded. Somatic background of the symptoms of the patients admitted to the hospital was excluded as well as primary sexual disorder. The purpose of the questionnaires was explained to participants by the clinical staff, and informed consent was obtained. The questionnaires were completed independently and were kept in anonymous form in a computer database. The KO’0’ symptom checklist was developed by Aleksandrowicz in the 1970s [43] and has consistently been evaluated as a valid, reliable tool. This 138-item instrument was designed to assess symptoms in neurotic patients as well as the effects of psychotherapy. Each symptom is assessed by the patient on a four-point Likert scale. The instrument comprises 14 subscales and provides a global symptom index [39].

The 138-item structured biographical interview collects information regarding many of the patient’s demographics, family and living conditions [40], including sexual function-

ing, and some data on potentially burdensome childhood and adolescence adversities. A more updated version was developed after 2002, but the present study is based on the data amassed using the earlier version, due to the need for a large sample size.

In the years of construction, analyses of validity and reliability of the symptom checklist were verified by comparison of results on treated (patients) vs untreated (control) population and it confirmed its good psychometric properties. Now the control data was not accessible for this particular retrospective analysis thus no additional control group was used in the research.

The two questionnaires, the symptom checklist and the structured biographical interview,

were filled in during the diagnostic process. Paired variables from the aforementioned questionnaires were selected for association analysis as follows: 1) occurrence of symptom reported in checklist (scored 0-1), and 2) event from structured psychological biography questionnaire (also scored 0-1). The first step of the analysis was to assess hazard ratios regarding each symptom for separate biographical events (i.e. recollections) with univariate logistic regression. Thus, the association coefficients with p-levels were used for comparative analysis between symptoms, and finally the combinations of adversities were calculated as the new variables. Statistica PL licensed software was used.

Table 1. Participant demographics, sexual and reproductive history

	Women N=2582	Men N=1347
Age in years mean±SD (median)	33.2±9.0 (33.0)	31.7±8.9 (28.0)
Global Symptom Level score: mean±SD (median)	394.4±151.8 (387.0)	348.9±151.3 (336.0)
ICD-10 diagnosis (primary)	n (%)	n (%)
F44/45 Dissociative and somatoform disorders	740 (28.6%)	337 (25.0%)
F60 Personality disorders	598 (23.2%)	393 (29.2%)
F40/F41 Anxiety disorders	439 (17.0%)	209 (15.5%)
F48 Neurasthenia	193 (7.5%)	191 (14.2%)
F34 Dysthymia	173 (6.7%)	65 (4.8%)
F50 Eating disorders	125 (4.8%)	2 (0.1%)
F42 Obsessive-compulsive disorder	40 (1.5%)	30 (2.2%)
F43 Reaction to severe stress, and adjustment dis.	38 (1.5%)	21 (1.6%)
Other	83 (3.2%)	23 (1.7%)
No data	154 (6.0%)	75 (5.6%)
Sexual disorders (from F5x and F6x subchapters)	0 (0.0%)	0 (0.0%)
Admitted before 1991	764 (29.6%)	587 (43.6%)
Admitted after 1990	1818 (70.4%)	760 (56.4%)
Education		
Primary school (Yr 0-8)	231 (8.9%)	162 (12.0%)
Secondary school (includes studying) (Yr 9-12)	1468 (56.9%)	753 (55.9%)
University (Yr 13-17)	883 (34.2%)	432 (32.1%)
Employed (included self-employed)	1498 (58.0%)	941 (69.9%)
White-collar workers	1151 (44.6%)	410 (30.4%)
Blue-collar workers	347 (13.4%)	531 (39.4%)
Unemployed	1084 (42.0%)	406 (30.1%)
including invalidity benefit claimants or retired	261 (10.1%)	94 (7.0%)
Students	574 (22.2%)	318 (23.6%)

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Urban population	1281 (49.6%)	646 (48.0%)
Stable marriage/relationship	1098 (42.5%)	635 (47.1%)
Unstable marriage/relationship	687 (26.6%)	287 (21.3%)
No relationship	797 (30.9%)	425 (31.6%)
Never married	931 (36.1%)	594 (44.1%)
Before sexual initiation	369 (14.3%)	246 (18.3%)
After sexual initiation	2213 (85.7%)	1101 (81.7%)
No sexual contacts	1014 (39.3%)	472 (35.0%)
Sexual contacts	1568 (60.7%)	875 (65.0%)
Long-term sexual relationship	1412 (54.7%)	710 (52.7%)
Temporary, random sexual contacts	80 (3.1%)	98 (7.3%)
Both temporary and long-term relationships	59 (2.3%)	62 (4.6%)
Frequent intercourses (several times per week/month)	1145 (44.3%)	668 (49.6%)
Childless	1154 (44.7%)	671 (48.3%)

RESULTS

Of the 3929 eligible patients, 2582 (66%) were females. As shown in Table 1, the majority of the subjects were young adults, with a mean age of 32 years, the vast proportion of them never married (36% of women, 44% of men). Most were employed (60-70%). Over half were sexually active (60-64%), approximately half in a stable sexual relationship with one partner, and 56% of women had delivered at least one child. The information concerning sexual activity of the patients was reported through the Life Inventory.

The sexual traumatic events selected for the analysis were of different severity – from lack of sex education or punishment for sexual plays to severe sexual abuse. However, while analyzing the results, the severity was not taken into account as a separate factor, as the influence of a

given adverse sexual event depends not only on the objectively assessed harm, but also on the individual experiencing a given situation by particular patients – and this could not be measured by means of the empirical verification. Some patients had experienced sexual adversities or abuse (Table 2): they reported their sexual initiation to be a rape (4% of women and 0.6% of men) or other unwanted experience (17% and 4%, respectively). Extremely premature sexual initiation was rare (1%), but relatively premature (14-16yrs) appeared not uncommon (6%-8%). 14%-18% of respondents were still virgins. Actual or attempted incest was reported by 3-4% of subjects. Five percent of patients were punished for masturbation or sexual play as children or adolescents. The most frequent minor adversity was a self-assessed deficit in sex education before 18 years of age, reported by 21% of women and 23% of men.

Table 2. Participants' sexual adversities history

	Women N=2582 (%)	Men N=1347 (%)
Sex education before 18 y.o.		
Fully educated about sex	579 (22.4%)	301 (22.3%)
Not educated about sex	550 (21.3%)	303 (22.5%)
Carers' attitude towards masturbation or sexual play		
Patient punished for masturbation or sexual play	132 (5.1%)	70 (5.2%)
Sexual initiation		
Virgin	369 (14.3%) **	246 (18.3%) **
Sexual initiation before 14 y.o.	27 (1.0%)	18 (1.3%)
Sexual initiation when 14-16 y.o.	147 (5.7%) *	103 (7.6%) *
Initiation was "rather unwanted"	441 (17.1%) ***	58 (4.3%) ***

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Sexual initiation was a rape	108 (4.2%) ***	8 (0.6%) ***
Incest		
Actual or attempted incest	107 (4.1%) *	38 (2.8%) *

* p<0.05, **p<0.005, ***p<0.0005 (two-tailed test for two percentages, for comparison between women and men)

The symptom checklist data indicated that incidence of at least one of the six symptoms analyzed in the week preceding diagnostics (at pre-

therapy) was reported by 2131 (83%) women and 1133 men (84%).

Table 3. Symptoms reported by patients with the neurotic symptoms checklist

Symptom	Women	Men
Lack of satisfaction in sexual life (Q7)	53%	59%
Difficulties in sexual intercourse ('e.g. painful spasm of the muscles in women, lack of erection or premature ejaculation in men') (Q27)	25%	36%
Aversion to sexual contacts (Q47)	43%	33%
Significant reduction or loss of sexual desire (Q67)	53%	50%
Difficulties in contact with the opposite sex (Q70)	41%	42%
Discomfort connected with masturbation (Q87)	9%	22%

Table 4. Associations between childhood sexual adversities and sexual health complaints

	Not educated about sex before 18	Punished for masturbation or sexual play	Virgin	Initiation before 14	Initiation 14-16 y.o.	"Rather unwanted" sexual initiation	Initiation through rape	Actual or attempted incest
Women								
Lack of satisfaction with sexual life	1.51*** (1.25-1.83)	2.13*** (1.46-3.13)	0.34*** (0.27-0.43)	1.74 (0.78-3.88)	1.67** (1.18-2.37)	1.67*** (1.35-2.06)	2.11** (1.39-3.21)	1.82** (1.20-2.74)
Difficulties in sexual intercourse	1.73*** (1.42-2.13)	1.22 (0.83-1.80)	0.19*** (0.12-0.28)	1.01 (0.47-2.18)	1.85*** (1.31-2.61)	1.63*** (1.31-2.03)	1.97** (1.33-2.93)	1.36 (0.90-2.07)
Aversion to sexual contacts	1.50*** (1.24-1.81)	1.19 (0.84-1.70)	0.51*** (0.40-0.65)	1.20 (0.56-2.58)	1.54* (1.10-2.15)	1.52*** (1.24-1.86)	1.21 (0.82-1.78)	1.24 (0.84-1.82)
Reduction of sexual desire	1.58*** (1.30-1.91)	1.06 (0.74-1.50)	0.29*** (0.23-0.37)	1.77 (0.79-3.95)	1.42* (1.01-1.99)	1.50*** (1.22-1.85)	1.29 (0.87-1.91)	1.04 (0.71-1.53)
Difficulties in contact with the opposite sex	1.31** (1.09-1.59)	1.47* (1.04-2.09)	2.35*** (1.87-2.94)	0.70 (0.31-1.56)	1.19 (0.85-1.66)	1.06 (0.86-1.31)	1.73* (1.17-2.55)	1.57* (1.06-2.31)
Discomfort with masturbation	1.13 (0.83-1.54)	2.39*** (1.52-3.75)	1.82*** (1.32-2.51)	0.73 (0.17-3.11)	0.81 (0.44-1.48)	1.08 (0.77-1.52)	1.04 (0.55-1.98)	2.20** (1.33-3.65)

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Men								
Lack of satisfaction with sexual life	1.91*** (1.45-2.52)	1.92* (1.12-3.29)	0.83 (0.62-1.09)	2.45 (0.80-7.49)	0.96 (0.65-1.44)	1.44 (0.82-2.53)	2.08 (0.42-10.38)	1.72 (0.85-3.51)
Difficulties in sexual intercourse	1.34* (1.03-1.74)	1.30 (0.79-2.11)	0.33*** (0.23-0.47)	2.28 (0.89-5.83)	1.44 (0.96-2.17)	0.74 (0.42-1.32)	1.08 (0.26-4.55)	1.32 (0.69-2.55)
Aversion to sexual contacts	1.56** (1.20-2.03)	1.79* (1.10-2.90)	0.78 (0.58-1.06)	2.08 (0.82-5.27)	0.79 (0.51-1.24)	N/A	2.06 (0.51-8.30)	1.07 (0.54-2.10)
Reduction of sexual desire	1.65*** (1.27-2.13)	1.84* (1.12-3.04)	0.43*** (0.32-0.57)	N/A	0.89 (0.60-1.34)	1.07 (0.63-1.80)	0.99 (0.14-6.96)	0.72 (0.37-1.38)
Difficult in contact with the opposite sex	1.61*** (1.25-2.09)	0.96 (0.59-1.56)	2.94*** (2.20-3.92)	0.68 (0.25-1.82)	0.56* (0.36-0.87)	1.03 (0.61-1.74)	2.28 (0.54-9.61)	1.38 (0.72-2.62)
Discomfort with masturbation	1.56** (1.16-2.08)	1.55 (0.91-2.63)	3.12*** (2.32-4.21)	1.01 (0.45-2.26)	0.68 (0.40-1.16)	1.49 (0.83-2.66)	2.12 (0.50-8.95)	2.11* (1.07-4.13)

Odds ratios with 95% confidence intervals, statistical significance: * $p < 0.05$, ** $p < 0.005$, *** $p < 0.0005$. The fields with the strongest and most significant associations are shaded.

We noted statistically significant associations of almost all sexual symptoms (as shown in Tab. 3; see also [37, 41]) with a reported perceived lack of sex-related education before 18 years of age (ORs 1.31-1.73; $p < 0.05$). Low odds ratios were associated with the recollection of being fully informed about sex in childhood or adolescence ($p = 0.05$) for all symptoms except masturbation discomfort. Associations between unwanted sexual initiation ("rather unwanted" or described as rape) or incest (or attempted incest) and the majority of sexual symptoms were evident in women (contrary to men) ($p < 0.05$). Tab. 3; (see also [37, 41]) depicts data for early sexual initiation, but cases of very early initiation (at 13 y.o. or younger) were far too rare for any associations to be observed. More respondents in this sample of patients reported sexual initiation between 14 and 16 years of age, and some significant odds ratios were identified ($p < 0.05$), though only in the female patient group. Not very surprisingly, men who had started their sexual life early (14-16 y.o.) had a reduced risk of difficulties in their current social interactions with women (symptom from Q70) (OR = 0.56; $p < 0.01$). Finally, the subpopulation of sexually uninitiated patients reported intercourse-related symptoms less frequently but were at a sig-

nificantly elevated risk of masturbation-related discomfort as well as difficulties in contact with the opposite sex.

The next stage of the analysis included estimation of the odds ratios for combinations (pairs) of childhood sexual adversities, and its results are shown in Fig. 1 (women).

In the subgroup of patients who were punished for masturbation or sexual play and were not educated about sex, the risk of "added" lack of sexual satisfaction was further increased (OR 4.27). Compared to patients with no reported incest or incest attempt, the risk of dissatisfaction with sex was substantially increased for those with a "rather unwanted" sexual initiation (OR 2.51), and when sexual initiation was a rape, the risk of sexual intercourse difficulties was increased even further (OR 3.75) (Fig. 1 – next page).

In men, only the risk of dissatisfaction with sex was substantially increased with a combination of lack of sex education and punishment for masturbation (for these as single adversities OR = 1.91 and 1.92, respectively, and where they occurred together OR = 4.71). Other coefficients were rather weak due to the small size of the subgroups.

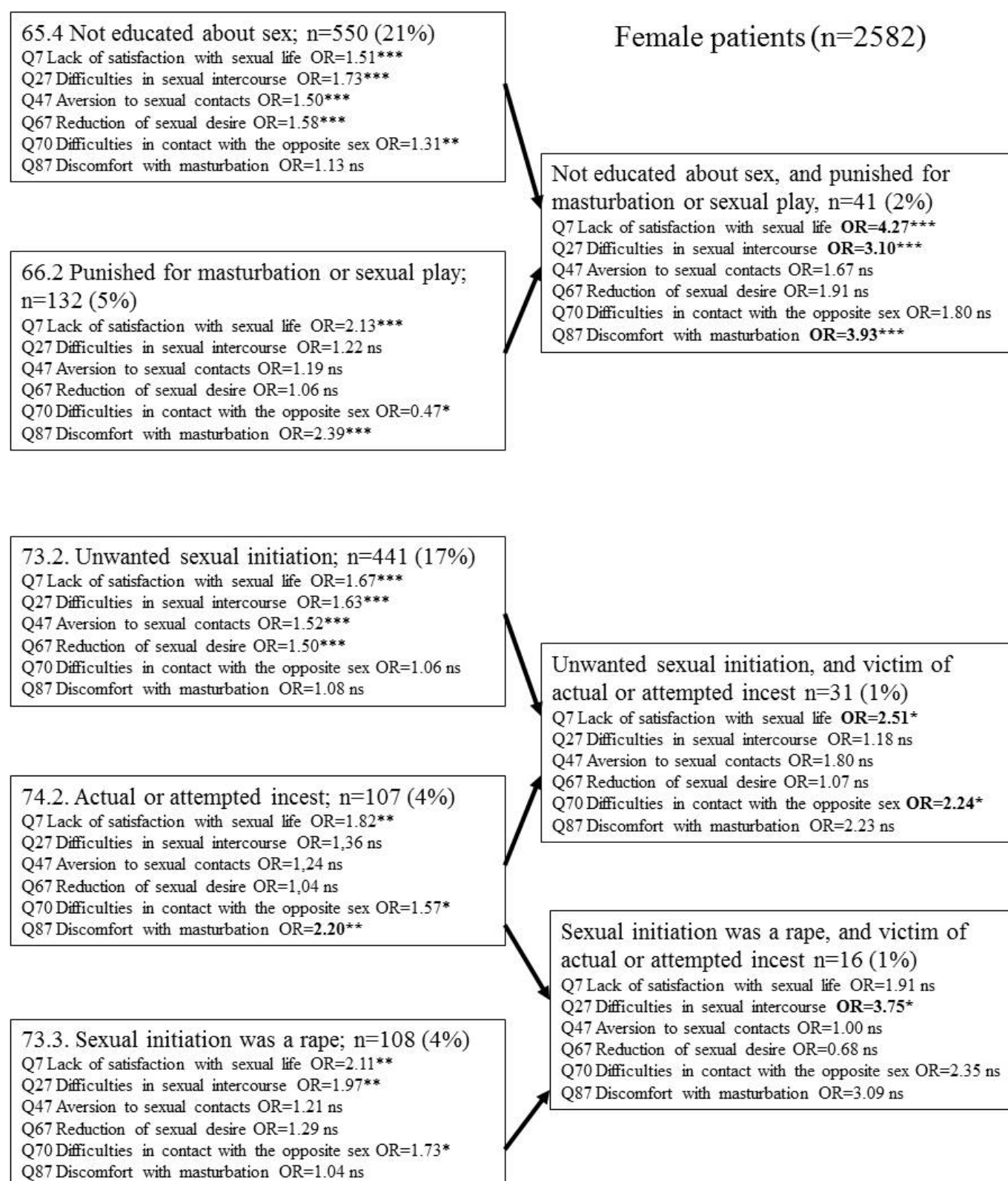


Figure 1. Associations between paired childhood sexual adversities and symptoms in female patients

Table 5. Associations for sex life satisfaction controlled for selected sociodemographic variables in women patients

Dissatisfaction with sexual life	Completely not educated about sex	Punished for masturbation or sexual play	Sexual debut before 14 y.o.	Sexual debut 14-16 years	Unwanted sexual debut	Sexual debut – rape	Incest or an attempt
Admitted before 1991	1.97*** (1.37-2.85)	3.69** (1.49-9.10)	0.85 (0.12-6.05)	1.40 (0.65-3.01)	N/A	N/A	N/A
Admitted after 1990	1.37* (1.09-1.72)	1.91** (1.24-2.92)	2.06 (0.84-5.04)	1.81** (1.22-2.69)	1.82*** (1.40-2.35)	1.83* (1.10-3.04)	1.84* (1.18-2.88)
Younger than 26	1.06 (0.65-1.74)	1.89 (0.85-4.20)	2.04 (0.34-12.34)	1.52 (0.83-2.78)	1.50 (0.89-2.54)	2.20 (0.71-6.82)	1.17 (0.53-2.57)
Older than 25	1.47*** (1.19-1.82)	2.15** (1.38-3.35)	1.60 (0.65-3.95)	1.90** (1.22-2.96)	1.30* (1.04-1.63)	1.93** (1.22-3.04)	2.19** (1.32-3.63)
Employed	1.58*** (1.26-1.98)	2.07** (1.31-3.27)	2.08 (0.74-5.86)	1.74* (1.11-2.74)	1.55** (1.21-1.98)	2.03** (1.26-3.27)	2.42** (1.42-4.11)
White collars	1.80*** (1.32-2.46)	2.02* (1.13-3.60)	1.90 (0.49-7.39)	1.30 (0.70-2.41)	1.80*** (1.30-2.48)	1.91 (0.99-3.71)	2.35* (1.17-4.72)
Blue collars	1.43 (0.88-2.32)	2.61 (0.82-8.29)	N/A	2.52* (1.14-5.60)	1.18 (0.71-1.97)	1.33 (0.50-3.54)	3.19 (0.87-11.71)
Students	1.06 (0.56-2.00)	2.00 (0.78-5.10)	N/A	1.56 (0.50-4.89)	2.27* (1.13-4.56)	0.96 (0.06-15.72)	0.68 (0.27-1.75)
Non-students	1.56*** (1.27-1.91)	2.17*** (1.43-3.31)	1.42 (0.62-3.26)	1.67* (1.16-2.41)	1.60*** (1.28-2.01)	2.12** (1.39-3.26)	2.33*** (1.45-3.76)
Grown in the large city	1.18 (0.89-1.56)	2.63** (1.47-4.70)	0.89 (0.31-2.57)	1.78* (1.15-2.76)	1.38* (1.02-1.88)	1.47 (0.78-2.77)	1.15 (0.65-2.03)
Grown in the small city/village	1.87*** (1.43-2.45)	1.79* (1.08-2.98)	4.63* (1.02-21.02)	1.55 (0.86-2.79)	1.96*** (1.46-2.63)	2.72** (1.53-4.84)	2.94** (1.57-5.51)
Never married	1.08 (0.74-1.57)	1.83* (1.02-3.27)	1.33 (0.33-5.36)	1.81* (1.02-3.20)	1.39 (0.94-2.04)	1.34 (0.65-2.78)	1.27 (0.64-2.49)
Married, divorced or widowed	1.51** (1.20-1.90)	2.54** (1.49-4.32)	1.90 (0.68-5.31)	1.60* (1.02-2.50)	1.66*** (1.28-2.16)	2.51** (1.45-4.35)	2.25** (1.30-3.92)
Virgin	0.88 (0.42-1.84)	1.63 (0.64-4.18)	N/A	N/A	N/A	N/A	N/A
Nonvirgin	1.44* (1.17-1.76)	2.34** (1.52-3.63)	1.49 (0.67-3.34)	1.43* (1.01-2.03)	1.40* (1.13-1.74)	1.81* (1.19-2.76)	1.83* (1.18-2.83)
Long-term sexual relationship	1.50** (1.16-1.95)	2.88** (1.52-5.47)	1.20 (0.40-3.60)	1.09 (0.71-1.68)	1.66*** (1.25-2.21)	2.15* (1.14-4.06)	1.61 (0.89-2.91)
Frequent intercours	1.64* (1.22-2.20)	2.98** (1.47-6.06)	0.93 (0.28-3.07)	1.31 (0.83-2.07)	1.75** (1.27-2.40)	2.09* (1.03-4.24)	1.29 (0.70-2.39)

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No current sexual contacts	1.32 (0.96-1.81)	1.82* (1.04-3.16)	1.31 (0.26-6.52)	3.21** (1.57-6.59)	1.50* (1.06-2.14)	2.41* (1.24-4.70)	1.64 (0.86-3.15)
Delivered the child/children	1.37* (1.07-1.75)	2.24* (1.25-4.03)	2.36 (0.65-8.49)	1.67* (1.03-2.71)	1.52** (1.15-2.01)	2.52** (1.41-4.50)	2.06* (1.12-3.79)
Childless	1.31 (0.94-1.82)	2.25** (1.34-3.78)	1.26 (0.40-3.94)	1.68* (1.00-2.81)	1.61* (1.14-2.27)	1.34 (0.68-2.64)	1.59 (0.88-2.86)

Odds ratios with 95% confidence intervals, statistical significance: * $p < 0.05$, ** $p < 0.005$, *** $p < 0.0005$

The fields with the strongest and most significant associations are shaded

Table 6. Associations for sex life satisfaction controlled for selected sociodemographic variables in male patients

Dissatisfaction with sexual life	Completely not educated about sex	Punished for masturbation or sexual play	Sexual debut before 14 y.o.	Sexual debut 14-16 years	Unwanted sexual debut	Sexual debut - rape	Incest or an attempt
Admitted before 1991	1.98** (1.31-2.99)	2.13* (1.01-4.47)	2.95 (0.62-14.07)	0.84 (0.47-1.51)	1.73 (0.65-4.56)	1.83 (0.35-9.54)	3.23 (0.91-11.50)
Admitted after 1990	1.86** (1.28-2.69)	1.74 (0.79-3.82)	2.01 (4.03-10.07)	1.11 (0.62-1.97)	1.30 (0.65-2.58)	N/A	1.17 (0.49-2.83)
18-20 y.o.	3.68 (0.94-14.35)	3.60 (0.30-43.52)	N/A	3.83 (0.63-23.18)	N/A	N/A	3.83 (0.63-23.18)
Older than 40 years	1.75 (0.95-3.25)	1.52 (0.41-5.74)	0.90 (0.08-10.13)	0.68 (0.38-1.21)	1.69 (0.45-6.26)	N/A	N/A
Employed	1.68** (1.24-2.27)	1.83* (1.02-3.28)	4.25 (0.95-18.95)	1.00 (0.76-1.32)	1.45 (0.76-2.75)	1.29 (0.23-7.08)	1.96 (0.83-4.66)
White collars	1.31 (0.80-2.13)	2.51 (0.93-6.79)	1.36 (0.26-7.14)	1.51 (0.62-3.68)	1.09 (0.36-3.25)	1.08 (0.10-12.08)	1.36 (0.26-7.14)
Blue collars	2.05** (1.32-3.17)	1.42 (0.62-3.22)	N/A	0.89 (0.49-1.61)	1.25 (0.54-2.89)	N/A	2.30 (0.83-6.38)
Students	4.39** (1.70-11.33)	1.97 (0.49-7.92)	1.64 (0.14-18.71)	0.53 (0.09-3.31)	1.09 (0.23-5.06)	N/A	N/A
Non-students	1.72*** (1.29-2.31)	1.91* (1.07-3.43)	2.73 (0.76-9.73)	0.98 (0.64-1.49)	1.50 (0.82-2.75)	1.69 (0.33-8.77)	1.49 (0.72-3.07)
Grown in the large city	2.04** (1.35-3.10)	1.35 (0.69-2.63)	3.47 (0.40-29.96)	1.14 (0.65-1.98)	1.60 (0.77-3.32)	2.77 (0.31-24.98)	1.15 (0.41-3.21)
Grown in the small city/village	1.82** (1.26-2.63)	3.49* (1.31-9.28)	2.12 (0.57-7.90)	0.78 (0.43-1.44)	1.23 (0.51-2.97)	1.40 (0.13-15.53)	2.43 (0.89-6.67)
Never married	2.55*** (1.67-3.90)	1.90 (0.78-4.64)	1.08 (0.18-6.55)	0.76 (0.37-1.53)	1.79 (0.73-4.40)	N/A	1.79 (0.73-4.40)
Married, divorced or widowed	1.52* (1.05-2.19)	1.91 (0.97-3.76)	3.75 (0.82-17.08)	1.07 (0.65-1.78)	1.24 (0.60-2.55)	1.01 (0.29-3.47)	1.69 (0.52-5.45)

table continued on next page

Virgin	3.17** (1.62-6.20)	1.88 (0.56-6.31)	N/A	N/A	N/A	N/A	1.65 (0.40-6.79)
Nonvirgin	1.71** (1.26-2.31)	1.93* (1.06-3.53)	2.37 (0.77-7.25)	0.93 (0.61-1.40)	1.40 (0.80-2.45)	1.68 (0.32-8.69)	1.78 (0.78-4.06)
Long-term sexual relationship	1.41 (0.97-2.04)	1.94 (0.97-3.87)	2.62 (0.71-9.64)	0.97 (0.57-1.62)	1.04 (0.48-2.22)	1.55 (0.14-17.28)	1.73 (0.59-5.03)
Frequent intercoursces	1.42 (0.97-2.07)	2.66* (1.23-5.75)	3.46 (0.97-12.40)	1.05 (0.63-1.74)	1.06 (0.49-2.30)	1.69 (0.15-18.84)	1.71 (0.63-4.63)
No current sexual contacts	2.86*** (1.76-4.65)	1.47 (0.59-3.68)	1.35 (0.12-15.08)	0.86 (0.32-2.36)	2.52 (0.92-6.93)	2.03 (0.21-19.80)	2.07 (0.66-6.53)
Has a child/children	1.55* (1.04-2.31)	1.68 (0.76-3.69)	2.59 (0.54-12.35)	1.03 (0.61-1.74)	1.07 (0.51-2.24)	1.28 (0.12-14.26)	1.29 (0.38-4.33)
Childless	2.29*** (1.56-3.36)	2.15* (1.03-4.51)	2.24 (0.45-11.21)	0.81 (0.42-1.57)	2.06 (0.85-4.97)	2.98 (0.33-26.92)	2.06 (0.85-4.97)

Odds ratios with 95% confidence intervals, statistical significance: * $p < 0.05$, ** $p < 0.005$, *** $p < 0.0005$

The fields with the strongest and most significant associations are shaded

As it is shown in Tab. 5, when associations between one selected symptom i.e. sex life satisfaction, and selected sexual adversities were controlled for some sociodemographic variables (e.g. patient's age, time of admission etc.), many links appeared to be confirmed as significant, in group of female patients. In men (see Tab. 6) only lacking sex-related education, and punishment for masturbation or sexual plays, were confirmed when controlled.

DISCUSSION

The symptoms of sexual disorders are health problems that often still go underdiagnosed despite their high prevalence and detrimental impact on well-being, relationships, and psychological adjustment. Although deprivation of sexual education and more especially traumatic sexual events may constitute risk factors for the development of neurotic disorders, converse effects, of relationship problems (resulting from psychiatric disturbances) on current sexual health, may also be observed. No research study, including this one, has succeeded in resolving this ambiguity.

Although the correlation between childhood sexual adversities and the presence of sexual problems has been replicated frequently and is probably a causal relationship, the mechanisms

that are responsible for specific associations of single symptoms or problems are still unclear.

We do not explore here the current context of sexual symptoms; it is plausible, however, that they are also linked to experience of contemporary sexual adversities, e.g. violence, unhappy marriage, discordant sexual relationship, etc.

This study also examined retrospectively self-reported "minor" traumatic events (adversities): deficits in sex education and sexual traumas, e.g. being punished for masturbation. This exposure appeared to be important in 3929 adult outpatients. The sexual burden of many children is still a relatively taboo subject; this study demonstrates that the experience of incestuous, premature, unwanted and other traumatic sex is strongly associated with heightened frequencies of sexual complaints.

The strengths of this patient-based study are the high level of participation and response rates despite the invasive nature of the investigations (patients are usually motivated to be thoroughly diagnosed, and moreover completion of the tests was a condition of admission); the use of standardized, Polish-language, validated and field-tested methods (e.g. the symptom checklist); the use of culturally appropriate indicators of socio-demographic and family burden (items from the structured interview); and the relatively large size of the group.

The present data support the hypothesis that the etiology of sexual problems is multifactori-

al and that traumatic childhood life events may only be contributing factors. Owing to the retrospective nature of the data, the results must be interpreted with caution. Multiple factors, such as non-psychiatric medical diagnoses and a number of medications, may affect sexual functioning. On the other hand, the fact that the participants of the study were relatively young, somatically healthy, and free of severe psychiatric illnesses, limits other than those of neurotic background reasons of neurotic symptoms. When the oral interview seems to be difficult to use or biased, important assistance may be found in questionnaires, which circumvent patients' embarrassment, doctors' discomfort, time constraints, etc. A large body of available research is based on sexual dysfunction-oriented questionnaires, but these are very complex and perhaps better suited to research than routine practice. Language and cultural differences also reduce the applicability of some of the research evidence to the Polish population (in the area of psychotherapy patients we found scant data on Polish patients [42]).

Differences between instruments assessing the prevalence of various symptoms of sexual disorders were evidenced by Hayes et al. [43], who stated that researchers' selection of instruments may have a serious impact on their prevalence estimates and the risk factors they find. Similar methodological issues were reported by Roy and Perry [44], who compared existing instruments that measure childhood trauma retrospectively, and concluded that the majority of tools focus on a single type of trauma, usually sexual abuse, most do not report psychometric properties (i.e. reliability and validity coefficients), and only a few are significantly useful for systematic research.

The frequent instances of bias may also be rooted in the patient-provided, self-reported content. Ferguson [50] indicated doubts as to whether the frequency of child sexual abuse and the impact of such abuse are properly assessed. More recently, Holmes [46] reported that 35% of subjects with abusive childhood sexual experience did not define it as child sexual abuse themselves.

One of the rarely investigated "minor adversities" seems to be inadequate sex education. Its influence is illustrated by Martins and Abdo [47] who reported a higher frequency of erectile

problems in men who lacked sexual education in childhood.

While analyzing the results of the research, the time scope should also be taken into account, namely the fact that the patients were examined approximately 20 years ago and some changes in comparison to patients treated presently may have taken place. However, it can be expected that the main links between the childhood adverse events and the subsequent symptoms are present regardless of the generational transformations.

Consistently with other investigations [48], we found that both perceived (patient-reported) inadequate sexual education by parents or caregivers and aversive attitudes among parents and carers towards child sexuality (e.g. sexual play or masturbation), and retrospective reports of improper sexual initiation (too early, forced or incest) are typical elements of a traumatic childhood. When examined together, both pairs – deficiency in education plus punishments for masturbation or sexual play, and unwanted sexual initiation/initiation through rape plus incest/attempted incest – were substantially associated with dissatisfaction with sexual life and difficulties in sexual intercourse in adulthood, with the impact of the education/punishments combination being more potent. These results are in accordance with those of several previous studies on the potentializing effects of a combination of several traumatic events [49]. The joint impact of these events on the risk of some sexual complaints was actually better confirmed in women, as only a few significant associations were observed in the less numerous group of men.

Our analysis of this large database revealed greater and more frequent significances for females, but this is probably the effect of the less numerous subgroup of males, and possibly also of partial differences in influences on men vs on women. For example, in the domain of sexual initiation of male patients we examined the combination of unwanted initiation/initiation through rape with incest or attempted incest in the prediction of all six sexual complaints: none of these tests produced significant correlations. The reasons for this are not entirely clear, though one could speculate that this may reflect male-specific coping and defense mechanisms as delineated by Holmes and Slap [22].

We acknowledge certain other limitations of our investigation, including the lack of longitudinal measurements, and the fact that results for this sample of patients of one large psychotherapy clinic cannot be extrapolated to the overall Polish or European patient population. Our results may be biased for several reasons: the large, insufficiently homogenous group, the routine practice instruments employed, the lack of specific, detailed data on patient sex life, menopausal status, partner-patient interaction, length of time in the relationship, partner sexual dysfunction, and relationship problems. Nonetheless, the primary assumption underlying this study is that it includes data from routine assessment of sexual functioning before psychotherapy evaluated with the use of a validated neurotic symptom checklist and at the same time data from a biographical structured interview with another routine practice self-report questionnaire in a day-hospital patient population.

The results of this study suggest other areas for potential future investigations with the additional employment of more focused instruments. Is the use of self-administered questionnaires really helpful in the evaluation at pretreatment of neurotic patients with accompanying sexual dysfunction? Other investigators, particularly in Polish studies [40], have reported predominantly on data from questionnaires devoted to certain sexual dysfunctions [20-21] and to specific subpopulations [17-18,36].

Patients with a history of childhood adversities such as sexual abuse, incest, lack of sex education, and parental attitudes hostile to their sexuality may thus represent a subgroup of subjects whose adult sexual functioning requires special attention. Further research involving more homogenous samples and collection of more detailed data is needed to investigate the generalizability of our findings, and in order to determine if particular traumatic experiences and resulting distortions, e.g. core beliefs or deficits, need to be addressed therapeutically in such cases. Applied fragments (items) from two self-report instruments have been shown to be associated, and may well improve individual patient assessments and subsequently therapeutic interventions. The results of the study are also useful and valuable for the clinicians, therapists and also for the authors' own everyday clinical prac-

tice. Information about the childhood adverse life events and reported by the patients symptoms concerning sexual functioning should be taken into consideration to make the group and individual psychotherapy more effective, including the area of sexuality to be one of the important fields of therapeutic interventions.

CONCLUSIONS

1. Traumatic sexual events are common in the patient population and are strongly associated with sexual problems. The results of our study concur with an established body of evidence replicated in many populations and in many samples linking sexual adverse events with adult mental health.
2. This study has replicated these findings in a large sample of outpatients successively admitted to a psychotherapy day hospital for neurotic disorders.
3. Screening for sexual adversities including deficits in sex education, the trauma of incest, punishment for sexual play or masturbation, or too early or unwanted sexual initiation, appears to be important in identification of risk factors of sexual symptoms accompanying neurotic syndromes.
4. Further inquiry about the sexual health of neurotic patients presenting for psychotherapy may assist in the identification of target domains for treatment in this population. Routine use of questionnaires including sexual health related items may be a helpful first step in initiating such important exploration.
5. Finally, results strongly suggest that future studies focusing on the effects of childhood adversities on long-term sexual health outcomes may need to take into consideration the co-occurrence of multiple adversities.

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